

<110> GENOMINE INC.

KOREA RESEARCH INSTITUTE OF CHEMICAL TECHNOLOGY

<120> Polypeptide Participating in Pyridoxine Biosynthesis, a Polynucleotide Coding the Polypeptide and Those Uses

<150> KR 10-2004-0011517

<151> 2004-02-20

<160> 6

<170> KopatentIn 1.71

<210> 1

<211> 1297

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1

tcactataaaa gccgatccat agataaacga ggaccggcca gaaatcgctt caccattccc 60

aaatctctct tccattttct ccacacaaat ttctcttcaa tctccgataa tggaaaggaac 120

cggcgttgtg gcggtgtacg gtaacggtgc gataacggag gcgaagaaat ctcccttctc 180

cgtgaaggtc ggtttgctc agatgctccg tggtggttt atcatggatg tcgtcaacgc 240

cgagcaagct cgtatcgccg aggaggctgg tgcttgcgcc gtcatggctt tggagcgtgt 300

tcctgctgat atccgcgctc aaggaggcgt cgctcgtatg agcgatccac aaatgattaa 360

agaaaatcaaa caagccgtta cgattccggat gatggctaa gctaggattt gtcatttcgt 420

tgaagctcag atcctttgaag caatttggaaat cgatttacatc gatgagagcg agtttttgc 480

tcttgcgtat gaagatcatc acatcaacaa gcataatttc cgatcccgt tcgtttgcgg 540

ttgccggaat ctccggcagg ctctgaggag gatccgtgaa ggtgcggcga tgatttggac 600

caaaggtaaa gctggaaaccg gtaacattat tgaagctgtg aggcatgtga ggtctgttaa 660

tggtgacatt agggttttgc gaaacatgga tggatgtgag gttttcaatt tcgctaagaa 720

attagccgct ccgtacgatc tcgtgtatgca gactaaggcag ctgggtcgtc ttcctgtgt 780

ccaaattcgcc gccgggtggag tggctactcc ggctgtatgca gctctcatgaa tgcaagctgg 840

atgtgtatggt gtctttgttg gttctggat cttaagagc ggtgacccag ctcgtcgtc 900

acgtgccatt gttcaggctg tgactcatta cagtgaccct gagatgttg tggaggtgag 960

ctgtgggctt ggagaagcca tggttggat caatctcaac gatgagaagg ttgagaggtt 1020

cgctaatcgc tccgagtatgaa caaagaaata aaaggtaaaa tatctcagac gaaatggttt 1080

cagaattttc tcagaccatt ttgcagtaat ctctttgaaa agaagaagat gatgtatattg 1140

ttggtagttt gtatcctttgc tggttccattt ataatcttgc atagtcattt gttattgtaa 1200

ctcgtaatcc ctgtcaaga acaagtttgt cagttataat aatgtactac tctttgtatc 1260

gatcagttgg ttttgaatct gatataattct tcgatcc 1297

<210> 2

<211> 309

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2

Met Glu Gly Thr Gly Val Val Ala Val Tyr Gly Asn Gly Ala Ile Thr  
1 5 10 15

Glu Ala Lys Lys Ser Pro Phe Ser Val Lys Val Gly Leu Ala Gln Met  
20 25 30

Leu Arg Gly Gly Val Ile Met Asp Val Val Asn Ala Glu Gln Ala Arg  
35 40 45

Ile Ala Glu Glu Ala Gly Ala Cys Ala Val Met Ala Leu Glu Arg Val  
50 55 60

Pro Ala Asp Ile Arg Ala Gln Gly Gly Val Ala Arg Met Ser Asp Pro  
65 70 75 80

Gln Met Ile Lys Glu Ile Lys Gln Ala Val Thr Ile Pro Val Met Ala  
85 90 95

Lys Ala Arg Ile Gly His Phe Val Glu Ala Gln Ile Leu Glu Ala Ile  
100 105 110

Gly Ile Asp Tyr Ile Asp Glu Ser Glu Val Leu Thr Leu Ala Asp Glu

115 120 125

Asp His His Ile Asn Lys His Asn Phe Arg Ile Pro Phe Val Cys Gly

130 135 140

Cys Arg Asn Leu Gly Glu Ala Leu Arg Arg Ile Arg Glu Gly Ala Ala

145 150 155 160

Met Ile Arg Thr Lys Gly Glu Ala Gly Thr Gly Asn Ile Ile Glu Ala

165 170 175

Val Arg His Val Arg Ser Val Asn Gly Asp Ile Arg Val Leu Arg Asn

180 185 190

Met Asp Asp Asp Glu Val Phe Thr Phe Ala Lys Lys Leu Ala Ala Pro

195 200 205

Tyr Asp Leu Val Met Gln Thr Lys Gln Leu Gly Arg Leu Pro Val Val

210 215 220

Gln Phe Ala Ala Gly Gly Val Ala Thr Pro Ala Asp Ala Ala Leu Met

225 230 235 240

Met Gln Leu Gly Cys Asp Gly Val Phe Val Gly Ser Gly Ile Phe Lys

245 250 255

Ser Gly Asp Pro Ala Arg Arg Ala Arg Ala Ile Val Gln Ala Val Thr

260 265 270

His Tyr Ser Asp Pro Glu Met Leu Val Glu Val Ser Cys Gly Leu Gly

275

280

285

Glu Ala Met Val Gly Ile Asn Leu Asn Asp Glu Lys Val Glu Arg Phe

290

295

300

Ala Asn Arg Ser Glu

305

<210> 3

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Sense primer

<400> 3

gaagatctat ggaaggaacc ggcgttgtgg 30

<210> 4

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense primer

<400> 4

cgaagctttt ataactgaca aacttggctc tg

32

<210> 5

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Sense primer

<400> 5

gaagatctca ctccggagcga tttagcgaac

29

<210> 6

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense primer

<400> 6

gctcttagatg gaaggaaccg gcgttgtggc

30